

IN THE CLAIMS:

Claims 1-46 are cancelled.

47. (Amended) An isolated nucleotide sequence which is of sufficient complementarity to regulate the level of an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridizes under high stringency conditions with a sequence of nucleotides set forth in SEQ ID NO:1, wherein the high stringency conditions are selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes; and
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour.

48. (Amended) An isolated nucleotide sequence which is of sufficient complementarity to regulate the level of an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridizes under high stringency conditions with a sequence of nucleotides set forth in SEQ ID NO:5, wherein the high stringency conditions are selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes; and
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour.

49. (Amended) A method producing a transgenic papaya plant with inhibited fruit senescence including the steps of:

(a) introducing into a papaya plant, plant part or plant cell a vector comprising an isolated nucleotide sequence which is of sufficient complementarity to regulate the level of an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises with a sequence of nucleotides set forth in SEQ ID NO:5 under high stringency conditions selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes;
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour;

wherein said isolated nucleotide sequence is operably linked, in a sense orientation, to one or more regulatory nucleotide sequences; and

(b) growing said plant, or regenerating said plant part or said plant cell to produce the transgenic papaya plant.

50. (Amended) A method of producing a transgenic papaya plant with inhibited fruit senescence including the steps of:

(a) introducing into a papaya plant, plant part or plant cell a vector comprising an isolated nucleotide sequence which is of sufficient complementarity to regulate the level of an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises with a sequence of nucleotides set forth in SEQ ID NO:5 under high stringency conditions selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes;
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour;

wherein said nucleotide sequence is operably linked, in an antisense orientation, to one or more regulatory nucleotide sequences; and

(b) growing said plant, or regenerating said plant part or said plant cell to produce the transgenic papaya plant.

51. (Amended) An isolated nucleotide sequence which is of sufficient [[length]] complementarity to [[regulate the level of]] an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises under high stringency conditions with a sequence of nucleotides set forth in SEQ ID NO:7 or SEQ ID NO:9, wherein the high stringency conditions are selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes; and
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour.

52. (Amended) A method of producing a transgenic mango plant with inhibited fruit senescence comprising:

(a) introducing into a mango plant, plant part or plant cell a vector comprising an isolated nucleotide sequence which is of sufficient [[length]] complementarity to [[regulate the level of]] an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises with a sequence of nucleotides set forth in SEQ ID NO:7 or SEQ ID NO:9 under high stringency conditions selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes;
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour;

wherein said nucleotide sequence is operably linked, in a sense orientation, to one or more regulatory nucleotide sequences; and

(b) growing said plant, or regenerating said plant part or said plant cell to produce the transgenic mango plant.

53. (Amended) A method of producing a transgenic mango plant with inhibited fruit senescence including the steps of:

(a) introducing into a mango plant, plant part or plant cell a vector comprising an isolated nucleotide sequence which is of sufficient [[length]] complementarity to [[regulate the level of]] an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises with a sequence of nucleotides set forth in SEQ ID NO:7 or SEQ ID NO:9 under high stringency conditions selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes;
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour;

wherein said nucleotide sequence is operably linked, in an antisense orientation, to one or more regulatory nucleotide sequences; and

(b) growing said plant, or regenerating said plant part or said plant cell to produce the transgenic mango plant.

54. (Cancelled)

55. (Cancelled)

56. (Cancelled)

57. (Cancelled)

58. (Twice Amended) A vector comprising at least one copy of an isolated nucleotide sequence which is of sufficient complementarity to regulate the level of an endogenous ACC synthase gene to reduce expression of said endogenous ACC synthase gene, and which hybridises under high stringency conditions with a sequence of nucleotides set forth in SEQ ID NO:1, SEQ ID NO: 5, SEQ ID NO:7 or SEQ ID NO: 9, wherein the high stringency conditions are selected from the group consisting of:

- (i) 0.1 x SSC/0.1% SDS at about 68°C for at least about 20 minutes; and
- (ii) 0.2 x SSC/0.1% SDS at about 68°C for about one hour.

59. (Amended) The vector of Claim 58 wherein said nucleotide sequence is operably linked to at least one regulatory nucleotide sequence.

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